VIA MM3500

User Manual

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VIA MM3500 Motherboard Layout

Block Diagram

PCI-ECLK
(100MHz)

VIA C7-D
Processor

CPUCLK+/- (100MHz)

VGA Port

400 MHz FSB

PCI Express x16

VIA
CN896

533/ 667 MHz

DDRII

66MHz V_Link

RJ45

1 PCI

LAN 6107/
6122(optional)

VIA
VT8237A /
VT8237S
(optional)

2 Serial ATA

LPC BUS

BIOS

LPT Port

IT8716F-S

AC97 Link

PS/2 KB/Mouse

8 Channel
CODEC

8 USB
Ports

ATA33/66/100/133
IDE Channels

COM Ports

PCICLK
(33MHz)

Surround Speaker Out
Center/Subwoofer Speaker Out
Side Speaker Out
MIC
Line-Out
Line-In
SPDIF In
SPDIF Out

Chapter 1 Hardware Installation

1-1   Considerations Prior to Installation

Preparing Your Computer

The motherboard contains numerous delicate electronic circuits and components which can become damaged as a result of electrostatic discharge (ESD). Thus, prior to installation, please follow the instructions below:

1.   Please turn off the computer and unplug its power cord.
2.   When handling the motherboard, avoid touching any metal leads or connectors.
3.   It is best to wear an electrostatic discharge (ESD) cuff when handling electronic components (CPU, RAM).
4.   Prior to installing the electronic components, please have these items on top of an antistatic pad or within a electrostatic shielding container.
5.   Please verify that the power supply is switched off before unplugging the power supply connector from the motherboard.

Installation Notices

1.   Prior to installation, please do not remove the stickers on the motherboard. These stickers are required for warranty validation.
2.   Prior to the installation of the motherboard or any hardware, please first carefully read the information in the provided manual.
3.   Before using the product, please verify that all cables and power connectors are connected.
4.   To prevent damage to the motherboard, please do not allow screws to come in contact with the motherboard circuit or its components.
5.   Please make sure there are no leftover screws or metal components placed on the motherboard or within the computer casing.
6.   Please do not place the computer system on an uneven surface.
7.   Turning on the computer power during the installation process can lead to damage to system components as well as physical harm to the user.
8.   If you are uncertain about any installation steps or have a problem related to the use of the product, please consult a certified computer technician.

Instances of Non-Warranty

1.   Damage due to natural disaster, accident or human cause.
2.   Damage as a result of violating the conditions recommended in the user manual.
3.   Damage due to improper installation.
4.   Damage due to use of uncertified components.
5.   Damage due to use exceeding the permitted parameters.

1-2   Feature Summary

Motherboard	◆ VIA MM3500
CPU	◆ VIA C7-D processor
Front Side Bus	◆ 400 MHz FSB
Chipset	◆ Northbridge: VIA CN896
	◆ Southbridge: VIA 8237A
LAN	◆ Onboard VIA 6107 chip (10/100 Mbit) /
Audio	◆ Realtek ALC883 CODEC
	◆ Supports 2 / 4 / 6 / 8 channel audio
	◆ SPDIF In / Out connection
	◆ CD In connection
Storage	◆ VIA 8237A
	- 2 IDE connectors (IDE1, IDE2) with UDMA 33/ATA 66/ATA 100/ATA 133 support, allowing connection of 4 IDE devices
	- 2 SATA connectors (SATA0/SATA1), allowing connection of 2 SATA devices
O.S Support	◆ Microsoft Windows Vista/2000/XP
Memory	◆ 2 DDRII DIMM memory slots
	◆ Supports 1.8V DDRII DIMMs
Expanstion Slots	◆ 1 PCI slot
	◆ 1 PCI-E x16 slot
Internal Connectors	◆ 1 24-pin ATX power connector
	◆ 2 IDE connectors
	◆ 2 SATA connectors
	◆ 1 CPU fan connector
	◆ 1 System fan connector
	◆ 1 front panel connector
	◆ 1 front audio connector
	◆ 1 CD In connector
	◆ 2 USB 2.0/1.1 connectors for additional 4 USB 2.0/1.1 ports by cables
	◆ 1 SPDIF In / Out connector
	◆ 2 COM port connectors (COMA / COMB)
	◆ 1 WOL connector
Rear Panel I/O	◆ 1 PS/2 keyboard port
	◆ 1 PS/2 mouse port
	◆ 1 parallel port
	◆ 1 VGA port
	◆ 4 USB 2.0/1.1 ports
	◆ 1 RJ-45 port
	◆ 6 audio jacks (Line In / Line Out / MIC In/Surround Speaker Out (Rear Speaker Out)/Center/Subwoofer Speaker Out/Side Speaker Out)

I/O Control	◆ IT8716F-S chip
Hardware Monitor	◆ System voltage detection
	◆ CPU / System temperature detection
	◆ CPU / System fan speed detection
BIOS	◆ Use of licensed AWARD BIOS
Form Factor	◆ Micro ATX form factor; 19.0cm x 22.8cm

1-3   Installation of Memory

⚠ **CAUTION**

Before installing the memory modules, please comply with the following conditions:

1.   Please make sure that the memory used is supported by the motherboard. It is recommended that memory of similar capacity, specifications and brand be used.
2 .   Before installing or removing memory modules, please make sure that the computer power is switched off to prevent hardware damage.
3 .   Memory modules have a foolproof insertion design. A memory module can be installed in only one direction. If you are unable to insert the module, please switch the direction.

The motherboard supports DDR II memory modules, whereby BIOS will automatically detect memory capacity and specifications. Memory modules are designed so that they can be inserted only in one direction. The memory capacity used can differ with each slot.

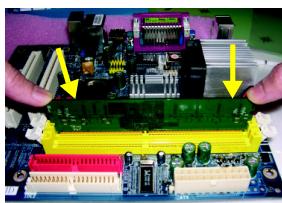**notch**

DDRII memory module
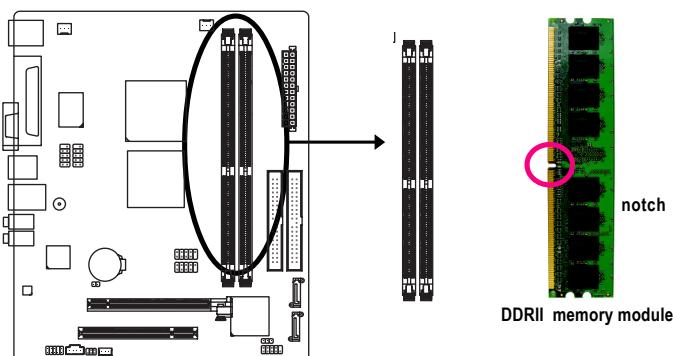
Fig.1
The DIMM socket has a notch, so the DIMM memory module can only fit in one direction. Insert the DIMM memory module vertically into the DIMM socket. Then push it down.
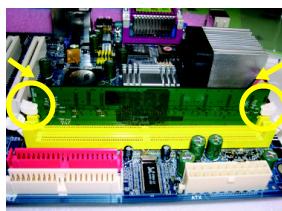
Fig.2
Close the plastic clip at both edges of the DIMM sockets to lock the DIMM module.
Reverse the installation steps when you wish to remove the DIMM module.

1-4   Installation of Expansion Cards

You can install your expansion card by following the steps outlined below:
1.   Read the related expansion card's instruction document before install the expansion card into the computer.
2.   Remove your computer's chassis cover, screws and slot bracket from the computer.
3.   Press the expansion card firmly into expansion slot in motherboard.
4.   Be sure the metal contacts on the card are indeed seated in the slot.
5.   Replace the screw to secure the slot bracket of the expansion card.
6.   Replace your computer's chassis cover.
7.   Power on the computer, if necessary, setup BIOS utility of expansion card from BIOS.
8.   Install related driver from the operating system.

For example: Installing a PCI Express x16 VGA card:
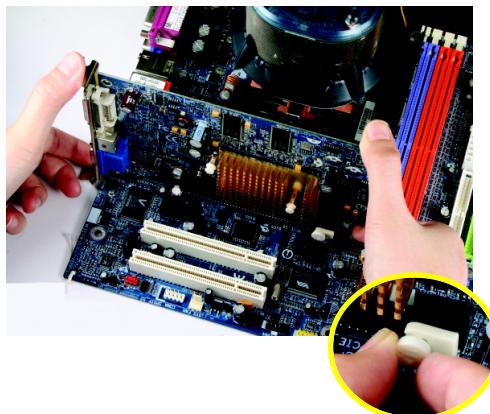
⚠ CAUTION

Please carefully pull out the small white-drawable bar at the end of the PCI Express x16 slot when you try to install/uninstall the VGA card. Please align the VGA card to the onboard PCI Express x16 slot and press firmly down on the slot. Make sure your VGA card is locked by the small white-drawable bar.
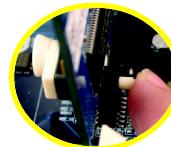
To release an installed card, users can also press the latch on the opposite side of the drawable bar as the picture to the left shows.

1-5 I/O Back Panel Introduction
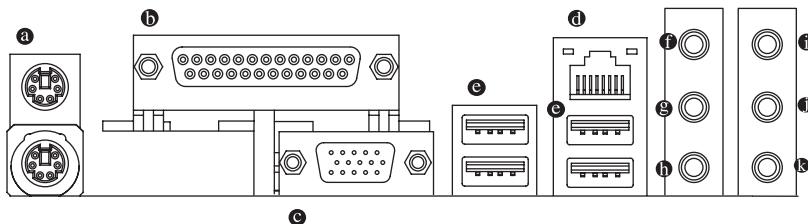
ⓐ **PS/2 Keyboard and PS/2 Mouse Connector**

To install a PS/2 port keyboard and mouse, plug the mouse to the upper port (green) and the keyboard to the lower port (purple).

ⓑ **Parallel Port**

The parallel port allows connection of a printer, scanner and other peripheral devices.

ⓒ **VGA Port**

Monitor can be connected to VGA port.

ⓓ **LAN Port**

The provided Internet connection is Ethernet.

ⓔ **USB port**

Before you connect your device(s) into USB connector(s), please make sure your device(s) such as USB keyboard, mouse, scanner, zip, speaker...etc. have a standard USB interface. Also make sure your OS supports USB controller. If your OS does not support USB controller, please contact OS vendor for possible patch or driver upgrade. For more information please contact your OS or device(s) vendors.

ⓕ **Line In**

Devices like CD-ROM, walkman etc. can be connected to Line In jack.

ⓖ **Line Out (Front Speaker Out)**

Connect the stereo speakers, earphone or front surround channels to this connector.

ⓗ **MIC In**

Microphone can be connected to MIC In jack.

ⓘ **Center/Subwoofer Speaker Out**

The default Center/Subwoofer Speaker Out jack. Center/Subwoofer speakers can be connected to Center/Subwoofer Speaker Out jack.

ⓙ **Surround Speaker Out (Rear Speaker Out)**

The default Surround Speaker Out (Rear Speaker Out) jack. Rear surround speakers can be connected to Surround Speaker Out (Rear Speaker Out) jack.

ⓚ **Side Speaker Out**

The default Side Speaker Out jack. Surround side speakers can be connected to Side Speaker Out jack.

1-6 Connectors Introduction
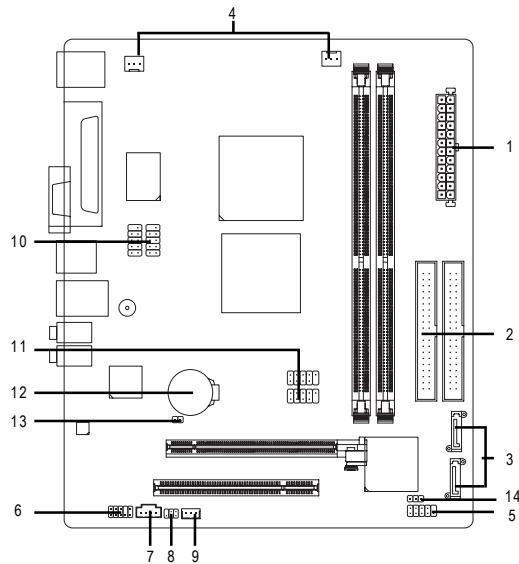
1)	**ATX (Power Connector)**	**8)**	**SPDIF_IO**
2)	**IDE1/ IDE2**	**9)**	**WOL**
3)	**SATA1 / SATA2**	**10)**	**COMA/COMB**
4)	**CPU_FAN / SYS_FAN**	**11)**	**F_USB1 / F_USB2**
5)	**F_PANEL**	**12)**	**BAT**
6)	**F_AUDIO**	**13)**	**CLR_CMOS**
7)	**CD_IN**	**14)**	**PWR_LED**

1) ATX (Power Connector) (2x12 pin ATX)

With the use of the power connector, the power supply can supply enough stable power to all the components on the motherboard. Before connecting the power connector, please make sure that all components and devices are properly installed. Align the power connector with its proper location on the motherboard and connect tightly.

Caution!

Please use a power supply that is able to handle the system voltage requirements. It is recommended that a power supply that can withstand high power consumption be used .

If a power supply is used that does not provide the required power, the result can lead to an unstable system or a system that is unable to start.
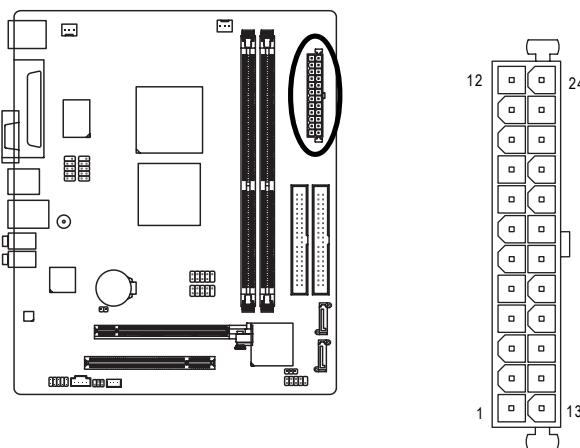
Pin No.	Definition	Pin No.	Definition
1	3.3V	13	3.3V
2	3.3V	14	-12V
3	GND	15	GND
4	+5V	16	PS_ON(soft On/Off)
5	GND	17	GND
6	+5V	18	GND
7	GND	19	GND
8	Power Good	20	-5V
9	5V SB(stand by +5V)	21	+5V
10	+12V	22	+5V
11	+12V(Only for 24-pin ATX)	23	+5V (Only for 24-pin ATX)
12	3.3V(Only for 24-pin ATX)	24	GND(Only for 24-pin ATX)

2) IDE1 / IDE2 (IDE Connector)

An IDE device connects to the computer via an IDE connector. One IDE connector can connect to one IDE cable, and the single IDE cable can then connect to two IDE devices (hard drive or optical drive). If you wish to connect two IDE devices, please set the jumper on one IDE device as Master and the other as Slave (for information on settings, please refer to the instructions located on the IDE device). Before attaching the IDE cable, please take note of the foolproof groove in the IDE connector.
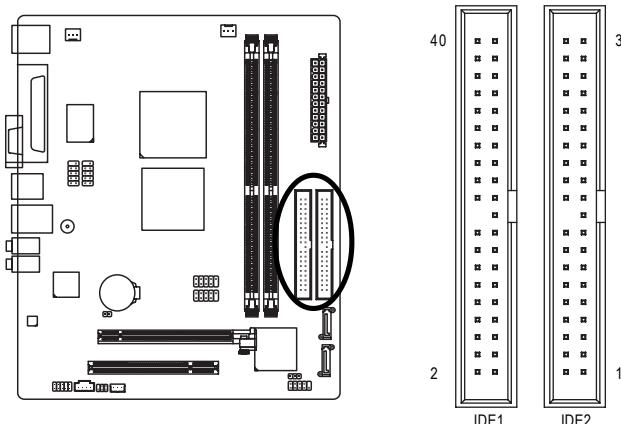
3) SATA0/SATA1 (Serial ATA Connector)

Serial ATA can provide up to 150MB/s transfer rate. Please refer to the BIOS setting for the Serial ATA and install the proper driver in order to work properly.

Pin No.	Definition
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND
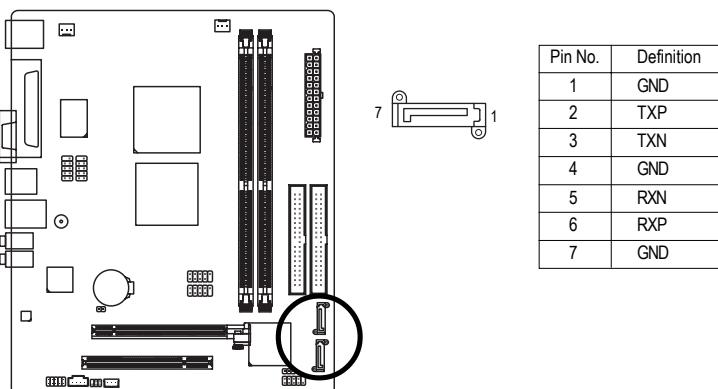
4)   CPU_FAN / SYS_FAN (Cooler Fan Power Connector)

The cooler fan power connector supplies a +12V power voltage via a 3-pin power connector and possesses a foolproof connection design.

Most coolers are designed with color-coded power connector wires. A red power connector wire indicates a positive connection and requires a +12V power voltage. The black connector wire is the ground wire (GND).

Remember to connect the CPU/system fan cable to the CPU_FAN/SYS_FAN connector to prevent CPU damage or system hanging caused by overheating.

CPU_FAN   SYS_FAN

Pin No.	Definition
1	GND
2	+12V
3	Sense
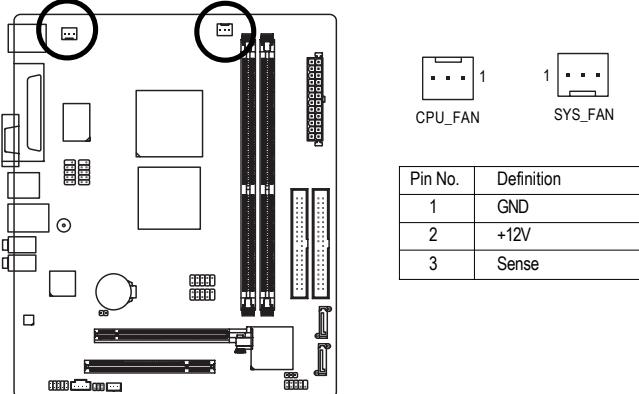
5)   F_PANEL (Front Panel Connector)

Pin No.	Definition	Pin No.	Definition
1	HD_LED+	2	MSGLED+
3	HD_LED-	4	MSGLED-
5	GND	6	PWRSW
7	RESET	8	GND
9	NC	10	
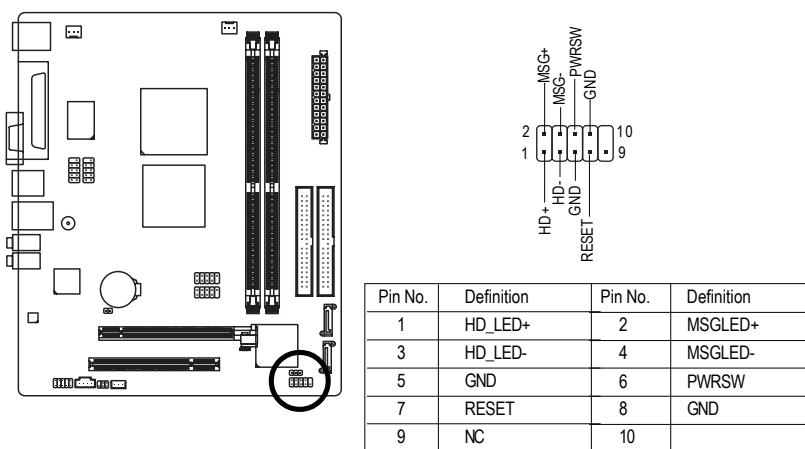
6) F_AUDIO (Front Audio Panel Connector)

This connector supports either HD (High Definition) or AC97 front panel audio module. If you wish to use the front audio function, connect the front panel audio module to this connector. Check the pin assignments carefully while you connect the front panel audio module. Incorrect connection between the module and connector will make the audio device unable to work or even damage it. For optional front panel audio module, please contact your chassis manufacturer.
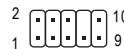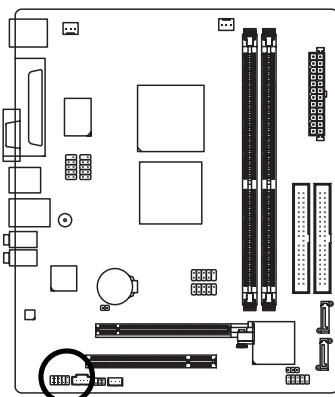
HD Audio:

Pin No.	Definition
1	MIC2_L
2	GND
3	MIC2_R
4	-ACZ_DET
5	Line2_R
6	FSENSE1
7	FAUDIO_JD
8	No Pin
9	LINE2_L
10	FSENSE2

AC'97 Audio:

Pin No.	Definition
1	MIC
2	GND
3	MIC Power
4	NC
5	Line Out (R)
6	NC
7	NC
8	No Pin
9	Line Out (L)
10	NC

7) CD_IN (CD IN Connector)

Connect CD-ROM or DVD-ROM audio out to the connector.
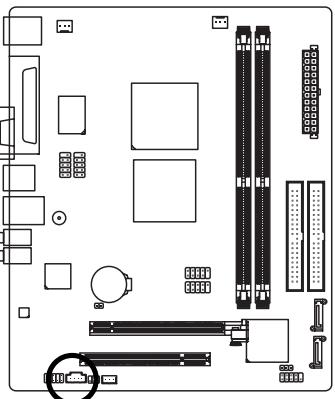
Pin No.	Definition
1	CD-L
2	GND
3	GND
4	CD-R

8) SPDIF_IO (SPDIF In/ Out)

The SPDIF output is capable of providing digital audio to external speakers or compressed AC3 data to an external Dolby Digital Decoder. Use this feature only when your stereo system has digital input function. Use SPDIF IN feature only when your device has digital output function. Be careful with the polarity of the SPDIF_IO connector. Check the pin assignment carefully while you connect the SPDIF cable. Incorrect connection between the cable and connector will make the device unable to work or even damage it. For optional SPDIF cable, please contact your local dealer.
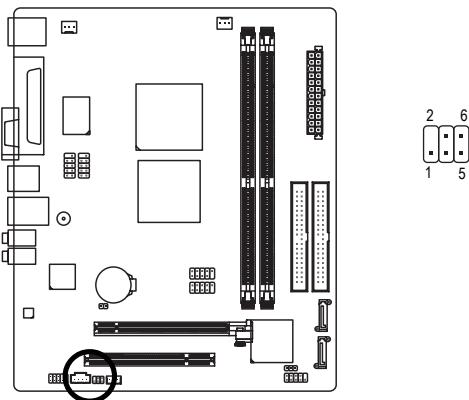
Pin No.	Definition
1	Power
2	No Pin
3	SPDIF
4	SPDIFI
5	GND
6	GND

9) WOL (Wake On LAN Connector)
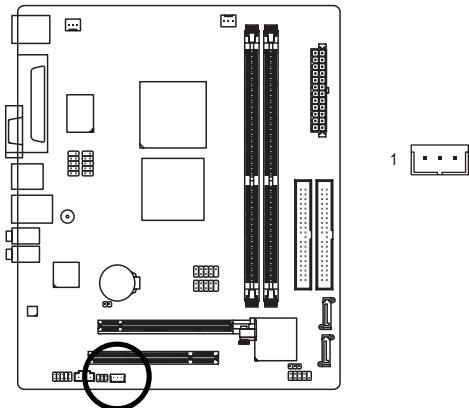
Pin No.	Definition
1	+5V SB
2	GND
3	Signal

10) COMA / COMB

Be careful with the polarity of the COM port connectors. Check the pin assignment carefully while you connect the COM port cable, incorrect connection between the cable and connector will make the device unable to work or even damage it.
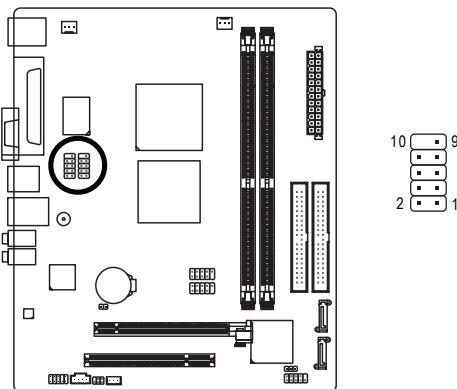
Pin No.	Definition
1	NDCDA/B-
2	NSINA/B
3	NSOUTA/B
4	NDTRA/B-
5	GND
6	NDSRA/B-
7	NRTSA/B-
8	NCTSA/B-
9	NRIA/B-
10	No Pin

11) F_ USB1 / F_USB2 (Front USB Connector)

Be careful with the polarity of the front USB connector. Check the pin assignment carefully while you connect the front USB cable, incorrect connection between the cable and connector will make the device unable to work or even damage it. For optional front USB cable, please contact your local dealer.
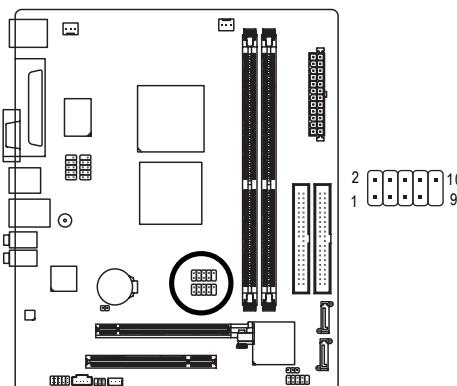
Pin No.	Definition
1	Power (5V)
2	Power (5V)
3	USB DX-
4	USB Dy-
5	USB DX+
6	USB Dy+
7	GND
8	GND
9	No Pin
10	NC

12) BAT (Battery)
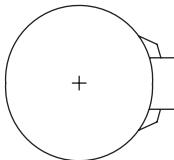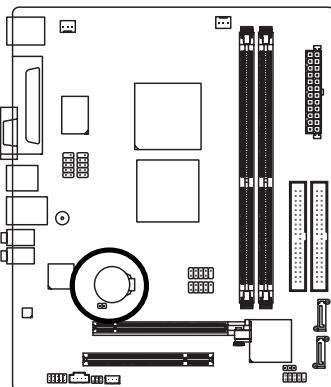
❖ Danger of explosion if battery is incorrectly replaced.

❖ Replace only with the same or equivalent type recommended by the manufacturer.

❖ Dispose of used batteries according to the manufacturer's instructions.

If you want to erase CMOS...

1. Turn off the computer and unplug the power cord.

2. Gently take out the battery and put it aside for about one minute. (Or you can use a metal object to connect the positive and negative pins in the battery holder to make them short for five seconds.)

3. Re-install the battery.

4. Plug the power cord in and turn on the computer.

13) CLR_CMOS (Clear CMOS)

You may clear the CMOS data to its default values by this header. To clear CMOS, temporarily short the two pins. Default doesn't include the jumper to avoid improper use of this header.
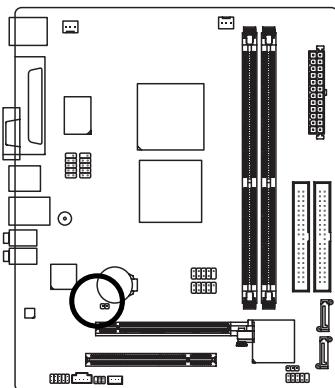
⊡⊡ Open: Normal

⊞⊞ Short: Clear CMOS

19) PWR_LED

The PWR_LED connector is connected with the system power indicator to indicate whether the system is on/off. It will blink when the system enters suspend mode.
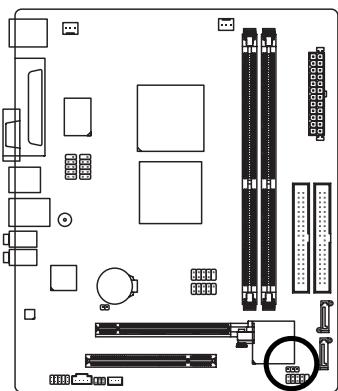
1 [·][·][·]

Pin No.	Definition
1	MPD+
2	MPD-
3	MPD-

English

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Chapter 2 BIOS Setup

BIOS (Basic Input and Output System) includes a CMOS SETUP utility which allows user to configure required settings or to activate certain system features.

The CMOS SETUP saves the configuration in the CMOS SRAM of the motherboard.

When the power is turned off, the battery on the motherboard supplies the necessary power to the CMOS SRAM.

When the power is turned on, pressing the <Del> button during the BIOS POST (Power-On Self Test) will take you to the CMOS SETUP screen.

CONTROL KEYS

< ↑ >< ↓ >< ← >< → >	Move to select item
<Enter>	Select Item
<Esc>	Main Menu - Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu - Exit current page and return to Main Menu
<Page Up>	Increase the numeric value or make changes
<Page Down>	Decrease the numeric value or make changes
<F1>	General help, only for Status Page Setup Menu and Option Page Setup Menu
<F2>	Item Help
<F5>	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
<F6>	Load the Fail-Salf Defaults
<F7>	Load the Optimized Defaults
<F9>	System Information
<F10>	Save all the CMOS changes, only for Main Menu

Main Menu

The on-line description of the highlighted setup function is displayed at the bottom of the screen.

Status Page Setup Menu / Option Page Setup Menu

Press <F1> to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window press <Esc>.

⚠ CAUTION Because BIOS flashing is potentially risky, please do it with caution and avoid inadequate operation that may result in system malfunction.

BIOS Setup

Boot up screen

The Main Menu (For example: BIOS Ver. :f3d)

Once you enter Phoenix-Award BIOS CMOS Setup Utility, the Main Menu (as figure below) will appear on the screen. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.

Phoenix- Award BIOS CMOS Setup Utility	
▶ Standard CMOS Features	Load Fail-Safe Defaults
▶ Advanced BIOS Features	Load Optimized Defaults
▶ Advanced Chipset Features	Set Supervisor Password
▶ Integrated Peripherals	Set User Password
▶ Power Management Setup	Save & Exit Setup
▶ PC Health Status	Exit Without Saving
▶ Frequency/Voltage Control	
ESC: Quit	↑↓→←: Select Item
F10: Save & Exit Setup	
Time, Date, Hard Disk Type...	

■ **Standard CMOS Features**

This setup page includes all the items in standard compatible BIOS.

■ **Advanced BIOS Features**

This setup page includes all the items of Phoenix - Award special enhanced features.

■ **Advanced Chipset Features**

This setup page includes all the items of chipset special features.

■ **Integrated Peripherals**

This setup page includes all onboard peripherals.

■ **Power Management Setup**

This setup page includes all the items of Green function features.

■ **PC Health Status**

This setup page is the System auto detect Temperature, voltage, fan, speed.

■ **Frequency/Voltage Control**

This setup page is control CPU clock and frequency ratio.

■ **Load Fail-Safe Defaults**

Fail-Safe Defaults indicates the value of the system parameters which the system would be in safe configuration.

■ **Load Optimized Defaults**

Optimized Defaults indicates the value of the system parameters which the system would be in best performance configuration.

■ **Set Supervisor Password**

Change, set, or disable password. It allows you to limit access to the system and Setup, or just to Setup.

■ **Set User Password**

Change, set, or disable password. It allows you to limit access to the system.

■ **Save & Exit Setup**

Save CMOS value settings to CMOS and exit setup.

■ **Exit Without Saving**

Abandon all CMOS value changes and exit setup.

English

2-1 Standard CMOS Features

```
                    Phoenix- AwardBIOS CMOS Setup Utility
                          Standard CMOS Features
┌─────────────────────────────────────────────────────────────────────────┐
│   Date (mm:dd:yy)              Tue, Mar  15  2006      │ Item Help         │
│   Time (hh:mm:ss)              14:42:37               │ Menu Level▶        │
│                                                       │                   │
│ ▶ IDE Channel 0 Master         [None]                 │ Change the day, month,│
│ ▶ IDE Channel 0 Slave          [None]                 │ year              │
│ ▶ IDE Channel 1 Master         [None]                 │                   │
│ ▶ IDE Channel 1 Slave          [None]                 │ <Week>            │
│ ▶ IDE Channel 2 Master         [None]                 │ Sun. to Sat.      │
│ ▶ IDE Channel 3 Master         [None]                 │                   │
│                                                       │ <Month>           │
│   Halt On                      [All, But Keyboard]    │ Jan. to Dec.      │
│                                                       │                   │
│   Base Memory                  640K                   │ <Day>             │
│   Extended Memory              511M                   │ 1 to 31 (or maximum│
│   Total Memory                 512M                   │ allowed in the month)│
│                                                       │                   │
│                                                       │ <Year>            │
│                                                       │ 1999 to 2098      │
│                                                       │                   │
├─────────────────────────────────────────────────────────────────────────┤
│ ↑↓→←: Move    Enter: Select    +/-/PU/PD: Value    F10: Save    ESC: Exit    F1: General Help │
│       F5: Previous Values         F6: Fail-Safe Defaults         F7: Optimized Defaults │
└─────────────────────────────────────────────────────────────────────────┘
```

☞ **Date**

The date format is <week>, <month>, <day>, <year>.

▶ Week   The week, from Sun to Sat, determined by the BIOS and is display only

▶ Month   The month, Jan. Through Dec.

▶ Day   The day, from 1 to 31 (or the maximum allowed in the month)

▶ Year   The year, from 1999 through 2098

☞ **Time**

The times format in <hour> <minute> <second>. The time is calculated base on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00.

☞ **IDE Channel 0 Master, Slave, IDE Channel 1 Master, Slave**

▶ IDE HDD Auto-Detection Press "Enter" to select this option for automatic device detection.

▶ IDE Device Setup. You can use one of three methods:

    Auto   Allows BIOS to automatically detect IDE devices during POST(default)

    None   Select this if no IDE devices are used and the system will skip the automatic detection step and allow for faster system start up.

    Manual   User can manually input the correct settings

▶ Access Mode Use this to set the access mode for the hard drive. The four options are: CHS/LBA/Large/Auto(default:Auto)

☞ **IDE Channel 2/3 Master**

▶ IDE HDD Auto-Detection Press "Enter" to select this option for automatic device detection.

▶ Extended IDE Drive SATA devices setup. You can use one of two methods:

    Auto   Allows BIOS to automatically detect SATA IDE devices during POST. (Default value)

    None   Select this if no SATA IDE devices are used and the system will skip the automatic detection step and allow for faster system start up.

▶ Capacity   Capacity of currently installed hard disk.

⏵ Cylinder	Number of cylinders
⏵ Head	Number of heads
⏵ Precomp	Write precomp
⏵ Landing Zone	Landing zone
⏵ Sector	Number of sectors

☞ **Halt on**

The category determines whether the computer will stop if an error is detected during power up.

⏵ No Errors	The system boot will not stop for any error that may be detected and you will be prompted.
⏵ All Errors	Whenever the BIOS detects a non-fatal error the system will be stopped.
⏵ All, But Keyboard	The system boot will not stop for a keyboard error; it will stop for all other errors. (Default value)
⏵ All, But Diskette	The system boot will not stop for a disk error; it will stop for all other errors.
⏵ All, But Disk/Key	The system boot will not stop for a keyboard or disk error; it will stop for all other errors.

☞ **Memory**

The category is display-only which is determined by POST (Power On Self Test) of the BIOS.

⏵ **Base Memory**

The POST of the BIOS will determine the amount of base (or conventional) memory installed in the system.

The value of the base memory is typically 512K for systems with 512K memory installed on the motherboard, or 640K for systems with 640K or more memory installed on the motherboard.

⏵ **Extended Memory**

The BIOS determines how much extended memory is present during the POST.

This is the amount of memory located above 1 MB in the CPU's memory address map.

⏵ **Total Memory**

This item displays the memory size that used.

2-2   Advanced BIOS Features

```
                      Phoenix- AwardBIOS CMOS Setup Utility
                            Advanced BIOS Features
 ┌──────────────────────────────────────────────────┬───────────────────────┐
 │ ▶ Hard Disk Boot Priority        [Press Enter]    │ Item Help             │
 │   Virus Warning                  [Disabled]       │ Menu Level▶           │
 │   CPU L2 Cache ECC Checking       [Enabled]        │                       │
 │   Quick Power On Self Test        [Enabled]        │ Select Hard Disk Boot │
 │   First Boot Device              [CDROM]          │ Device Priority       │
 │   Second Boot Device             [Hard Disk]      │                       │
 │   Third Boot Device              [LS120]          │                       │
 │   Boot Other Device              [Enabled]         │                       │
 │   Boot Up NumLock Status         [On]             │                       │
 │   Typematic Rate Setting         [Disabled]       │                       │
 │ x Typematic Rate (Chars/Sec)      6                │                       │
 │ x Typematic Delay (Msec)          250              │                       │
 │   Security Option                [Setup]          │                       │
 │   HDD S.M.A.R.T. Capability       [Disabled]       │                       │
 │   Video BIOS Shadow               [Enabled]        │                       │
 │   Full Screen LOGO Show           [Enabled]        │                       │
 │   Small Logo (EPA) Show           [Enabled]        │                       │
 │                                                    │                       │
 ├────────────────────────────────────────────────────────────────────────────┤
 │ ↑↓→←: Move    Enter: Select    +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help │
 │    F5: Previous Values        F6: Fail-Safe Defaults        F7: Optimized Defaults        │
 └────────────────────────────────────────────────────────────────────────────┘
```

☞ **Hard Disk Boot Priority**

Select boot sequence for onboard(or add-on cards) SCSI, RAID, etc.

Use < ↑ > or < ↓ > to select a device, then press<+> to move it up, or <-> to move it down the list. Press <ESC> to exit this menu.

☞ **Virus Warning**

If it is set to enable, the category will flash on the screen when there is any attempt to write to the boot sector or partition table of the hard disk drive. The system will halt and the warning message will appear in the mean time. You can run anti-virus program to locate the problem.

▶ Enabled   Activate automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table.

▶ Disabled   No warning message to appear when anything attempts to access the boot sector or hard disk partition table. (Default value)

☞ **CPU L2 Cache ECC Checking**

▶ Enabled   Enabled CPU L2 Cache ECC Checking.(Default Value)

▶ Disabled   Disalbed CPU L2 Cache ECC Checking.

☞ **Quick Power On Self Test**

If it is set to Enable, BIOS will shorten or skip some check items during POST.

▶ Enabled   Enabled quick POST.(Default Value)

▶ Disabled   Normal POST.

○ **First / Second / Third Boot Device**
- ▷ LS120   Select your boot device priority by LS120.
- ▷ Hard Disk   Select your boot device priority by Hard Disk.
- ▷ CDROM   Select your boot device priority by CDROM.
- ▷ ZIP100   Select your boot device priority by ZIP100.
- ▷ USB-FDD   Select your boot device priority by USB-FDD.
- ▷ USB-ZIP   Select your boot device priority by USB-ZIP.
- ▷ USB-CDROM   Select your boot device priority by USB-CDROM.
- ▷ USB-HDD   Select your boot device priority by USB-HDD.
- ▷ Legacy LAN   Select your boot device priority by Legacy LAN.
- ▷ Disabled   Disable this function.

○ **Boot Other Device**
- ▷ Enabled   Enabled other device boot.(Default Value)
- ▷ Disabled   Disabled this function.

○ **Boot Up Num Lock Staus**
- ▷ On   Keypad is number keys. (Default Value)
- ▷ Off   Keypad is arrow keys.

○ **Typematic Rate Setting**
- ▷ Disabled   Disabled typematic rate setting. (Default Value)
- ▷ Enabled   Enabled typematic rate setting.

○ **Security Option**
- ▷ System   The system can not boot and can not access to Setup page will be denied if the correct password is not entered at the prompt.
- ▷ Setup   The system will boot, but access to Setup will be denied if the correct password is not entered at the prompt. (Default value)

○ **HDD S.M.A.R.T. Capability**
S.M.A.R.T. which allows your hard disk to report any read/write errors and issue a warning when LDCM installed.
- ▷ Enabled   Enabled HDD S.M.A.R.T. capability.
- ▷ Disabled   Disabled HDD S.M.A.R.T. capability. (Default value)

○ **Video BIOS Shadow**
It determines whether video BIOS is able to copy to RAM, however, it isoptional from chipset design. Video Shadow will increase the video speed.
- ▷ Enabled   Video shadow is enabled .(Default Value)
- ▷ Disabled   Video shadow is desibled.

○ **Full Screen LOGO Show**
- ▷ Enabled   Enabled full screen logo show .(Default Value)
- ▷ Disabled   Disabled full screen logo show.

○ **Small Logo(EPA) Show**
- ▷ Enabled   Small logo(EPA) show is enabled .(Default Value)
- ▷ Disabled   Small logo(EPA) show is desibled.

2-3   Advanced Chipset Features

```
                        Phoenix- AwardBIOS CMOS Setup Utility
                              Advanced Chipset Features
┌──────────────────────────────────────────────────────────────────────────┐
│  ▶  DRAM Clock/Drive Control        [Press Enter]        Item Help          │
│  ▶  AGP & P2P Bridge Control        [Press Enter]        Menu Level▶        │
│  ▶  CPU & PCI Bus Control           [Press Enter]                           │
│     Memory Hole                     [Disabled]          Select Hard Disk Boot│
│     System BIOS Cacheable           [Enabled]           Device Priority     │
│     Video RAM Cacheable             [Disabled]                              │
│     Init Display First              [PCIEx]                                 │
│                                                                            │
│  xx PCI Express relative item xx                                            │
│     Maximum Payload Size            [4096]                                  │
│                                                                            │
│  ↑↓→←: Move    Enter: Select    +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help │
│        F5: Previous Values        F6: Fail-Safe Defaults         F7: Optimized Defaults     │
└──────────────────────────────────────────────────────────────────────────┘
```

☞ DRAM Clock/Drive Control

```
                        Phoenix- AwardBIOS CMOS Setup Utility
                              DRAM Clock/Drive Control
┌──────────────────────────────────────────────────────────────────────────┐
│     Current FSB Frequency            100MHz            Item Help            │
│     Current DRAM Frequency           266MHz            Menu Level▶          │
│     DRAM Clock                       [By SPD]                               │
│     DRAM Timing                      [Auto By SPD]                          │
│  x  SDRAM CAS Latency                [DDR/DDR 2.5 / 4]                      │
│  x  Bank lnterleave                  Disabled                               │
│  x  Precharge to Active (Trp)        4T                                     │
│  x  Active to Precharge (Tras)       07T                                    │
│  x  Active to CMD (Trcd)             4T                                     │
│  x  REP to ACT / REF (Trfc)          20T/21T                               │
│  x  ACT(0) to ACT(1) (TRRD)          3T                                     │
│     1T CMD Support                   [Disabled]                             │
│                                                                            │
│  ↑↓→←: Move    Enter: Select    +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help │
│        F5: Previous Values        F6: Fail-Safe Defaults         F7: Optimized Defaults     │
└──────────────────────────────────────────────────────────────────────────┘
```

☞ AGP & P2P Bridge Control

```
                        Phoenix- AwardBIOS CMOS Setup Utility
                              AGP & P2P Bridge Control
┌──────────────────────────────────────────────────────────────────────────┐
│     AGP Aperture Size                [128M]           Item Help            │
│     AGP3.0 Mode                      [8X]             Menu Level▶          │
│     AGP Master 1 WS Wirte            [Enabled]                             │
│     AGP Master 1 WS Read             [Enabled]                             │
│     VGA Share Memory Size            [64M]                                 │
│     Direct Frame Buffer              [Enabled]                             │
│                                                                            │
│                                                                            │
│  ↑↓→←: Move    Enter: Select    +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help │
│        F5: Previous Values        F6: Fail-Safe Defaults         F7: Optimized Defaults     │
└──────────────────────────────────────────────────────────────────────────┘
```

☞ CPU & PCI Bus Control

```
                        Phoenix- AwardBIOS CMOS Setup Utility
                              CPU & PCI Bus Control
┌──────────────────────────────────────────────────────────────────────────┐
│     PCI Master 0 WS Write            [Enabled]           Item Help          │
│     PCI Delay Transaction            [Enabled]           Menu Level▶        │
│     VLink mode selection             [By Auto]                              │
│     VLink 8X Support                 [Enabled]                              │
│     VIA PWR Management               [Enabled]                              │
│                                                                            │
│                                                                            │
│  ↑↓→←: Move    Enter: Select    +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help │
│        F5: Previous Values        F6: Fail-Safe Defaults         F7: Optimized Defaults     │
└──────────────────────────────────────────────────────────────────────────┘
```

☞ **Current FSB Frequency**

    ⏵ Detect front side bus automatically.

☞ **Current DRAM Frequency**

    ⏵ Detect DRAM fruquency automatically.

☞ **DRAM Clock**

⏵ By SPD	Set DRAM Clock by SPD.(Default Value)
⏵ 200MHz	Set DRAM Clock to 200MHz.
⏵ 266MHz	Set DRAM Clock to 266MHz.
⏵ 333MHz	Set DRAM Clock to 333MHz.

☞ **DRAM Timing**

⏵ Auto By SPD	Set DRAM timing auto by SPD.(Default Value)
⏵ Manual	Set DRAM timing by manually.

☞ **SDRAM CAS Latency**

    ⏵ Set SDRAM CAS Latency to DDR / DDR2.5 / 4

☞ **Bank Interleave**

⏵ Disabled	Set bank interleave to Disabled.(Default Value)
⏵ Enabled	Set bank interleave to Enabled.

☞ **Precharge to Active (Trp)**

    ⏵ Set precharge to active to 4T   (Default value:4T)

☞ **Active to Precharge (Tras)**

    ⏵ Set Active to precharge to 07T   (Default value:07T)

☞ **Active to CMD (Trcd)**

    ⏵ Set Active to CMD to 4T   (Default value:4T)

☞ **REP to ACT / REF(Trfc)**

    ⏵ Set REP to ACT / REF to 21T   (Default value:21T)

☞ **ACT(0) to ACT(1) (TRRD)**

    ⏵ Set ACT(0) to ACT(1) to 3T   (Default value:3T)

☞ **1T CMD Support**

⏵ Disabled	Disabled 1T CMD Support. (Default value)
⏵ Enabled	Enabled 1T CMD Support.

☞ **AGP Aperture Size**

⏵ 32M	Set AGP Aperture size to 32M.
⏵ 64M	Set AGP Aperture size to 64M.
⏵ 128M	Set AGP Aperture size to 128M.(Default value)
⏵ 256M	Set AGP Aperture size to 256M.
⏵ 512M	Set AGP Aperture size to 512M.
⏵ 1G	Set AGP Aperture size to 1G.

C **AGP 3.0 Mode**

  ▶ 8X   Set 8x to AGP AGP 3.0 mode. (Default value)

  ▶ 4X   Set 4x to AGP 3.0 mode.

C **AGP Master 1 WS Write**

  ▶ Disabled   Disabled AGP Master 1 WS write function. (Default value)

  ▶ Enabled   Enabled AGP Master 1 WS write function.

C **AGP Master 1 WS Read**

  ▶ Disabled   Disabled AGP Master 1 WS read function. (Default value)

  ▶ Enabled   Enabled AGP Master 1 WS read function.

C **VGA Share Memory Size**

  ▶ Disabled   Disabled this function.

  ▶ 64M   Set VGA share memory to 64M.(Default value)

  ▶ 128M   Set VGA share memory to 128M.

  ▶ 256M   Set VGA share memory to 256M.

C **Direct Frame Buffer**

  ▶ Disabled   Disabled direct fram buffer function.

  ▶ Enabled   Enabled direct fram buffer function. (Default value)

C **PCI Master 0 WS Write**

  ▶ Disabled   Disabled PCI Master 0 WS write.

  ▶ Enabled   Enabled PCI Master 0 WS write.(Default value)

C **PCI Delay transaction**

  ▶ Disabled   Disabled PCI delay transaction.

  ▶ Enabled   Enabled PCI delay transaction.(Default value)

C **VLink mode seclection**

  ▶ By Auto   VLink mode selection by automatically. (Default value)

  ▶ Mode 0   Set VLink mode to mode 0.

  ▶ Mode 1   Set VLink mode to mode 1.

C **VLink 8x Support**

  ▶ Disabled   Disabled VLink 8x support.

  ▶ Enabled   Enabled VLink 8x support.(Default value)

C **VIA PWR Management**

  ▶ Disabled   Disabled VIA power management.

  ▶ Enabled   Enabled VIA power management.(Default value)

C **Memory Hole**

  ▶ Disabled   Disabled this function. (Default value)

  ▶ 15M-16M   Enabled VLink 8x support.

☞ **System BIOS Cacheable**
- ▶ Disabled   Disabled System BIOS Cacheable.
- ▶ Enabled   Enabled System BIOS Cacheable.(Default value)

☞ **Video RAM Cacheable**
- ▶ Disabled   Disabled Video RAM Cacheable. (Default value)
- ▶ Enabled   Enabled Video RAM Cacheable.

☞ **Init Display First**

This feature allows you to select the first initiation of the monitor display from which card when you install a PCI card and a PCI Express VGA card on the motherboard.
- ▶ PCIEx   Set Init display first to PCI Express VGA card.(Default value)
- ▶ PCI slot   Set Init display first to PCI.
- ▶ Onboard   Set Init display first to Onboard VGA.

2-4 Integrated Peripherals

```
                         Phoenix- AwardBIOS CMOS Setup Utility
                                Integrated Peripherals
    ▶  VIA OnChip IDE Device             [Press Enter]          Item Help
    ▶  VIA OnChip PCI Device             [Press Enter]          Menu Level▶
    ▶  SuperIO Device                    [Press Enter]
    ▶  USB Device Setting                [Press Enter]




    ↑↓→←: Move     Enter: Select    +/-/PU/PD: Value    F10: Save    ESC: Exit    F1: General Help
         F5: Previous Values         F6: Fail-Safe Defaults            F7: Optimized Defaults
```

☞ **VIA OnChip IDE Device**

```
                         Phoenix- AwardBIOS CMOS Setup Utility
                              VIA OnChip IDE Device
    SATA Controller                      [Enabled]              Item Help
    SATA Controller Mode                 [IDE]                  Menu Level▶
    IDE DMA transfer access              [Enabled]
    OnChip IDE Channel 0                 [Enabled]
    OnChip IDE Channel 1                 [Enabled]
    IDE Prefetch Mode                    [Enabled]
    Primary Master PIO                   [Auto]
    Primary Slave PIO                    [Auto]
    Secondary Master PIO                 [Auto]
    Secondary Slave PIO                  [Auto]
    Primary Master UDMA                  [Auto]
    Primary Slave UDMA                   [Auto]
    Secondary Master UDMA                [Auto]
    Secondary Slave UDMA                 [Auto]
    IDE HDD Block Mode                   [Enabled]

    ↑↓→←: Move     Enter: Select    +/-/PU/PD: Value    F10: Save    ESC: Exit    F1: General Help
         F5: Previous Values         F6: Fail-Safe Defaults            F7: Optimized Defaults
```

☞ **VIA OnChip PCI Device**

```
                         Phoenix- AwardBIOS CMOS Setup Utility
                              VIA OnChip IDE Device
    Azalia HDA Controller                [Auto]                 Item Help
    Onboard Lan Device                   [Enabled]              Menu Level▶
    Onboard Lan Boot ROM                 [Disabled]


    ↑↓→←: Move     Enter: Select    +/-/PU/PD: Value    F10: Save    ESC: Exit    F1: General Help
         F5: Previous Values         F6: Fail-Safe Defaults            F7: Optimized Defaults
```

☞ **SuperIO Device**

```
                         Phoenix- AwardBIOS CMOS Setup Utility
                                   SuperIO Device
    Onboard Serial Port1                 [3F8/IRQ4]             Item Help
    Onboard Serial Port2                 [2F8/IRQ3]             Menu Level▶
    UART Mode Select                     [Normal]
  x UR2 Duplex Mode                      Half
    Onboard Parallel Port                [378/IRQ7]
    Parallel Port Mode                   [SPP]
  x ECP Mode Use DMA                     3

    ↑↓→←: Move     Enter: Select    +/-/PU/PD: Value    F10: Save    ESC: Exit    F1: General Help
         F5: Previous Values         F6: Fail-Safe Defaults            F7: Optimized Defaults
```

☞ **USB Device Setting**

```
                    Phoenix- AwardBIOS CMOS Setup Utility
                              USB Device Setting
  USB 1.0 Controller                 [Enabled]              Item Help
  USB 2.0 Controller                 [Enabled]              Menu Level▶
  USB Operation Mode                 [High Speed]
  USB Keyboard Function              [Enabled]
  USB Mouse Function                 [Enabled]
  USB Storage Function               [Enabled]

  xxx     USB Mass Storage Device Boot Setting     xxx


 ↑↓→←: Move    Enter: Select     +/-/PU/PD: Value    F10: Save    ESC: Exit    F1: General Help
      F5: Previous Values          F6: Fail-Safe Defaults         F7: Optimized Defaults
```

☞ **SATA Controller**
   ▶ Enabled   Enable onboard SATA controller port. (Default value)
   ▶ Disabled   Disable onboard SATA controller port.

☞ **SATA Controller Mode**
   ▶ IDE   Select onboard Seria ATA function as IDE.(Default value)
   ▶ RAID   Select onboard Seria ATA function as RAID.

☞ **IDE DMA transfer access**
   ▶ Enabled   Enable IDE DMA transfer access. (Default value)
   ▶ Disabled   Disable this function.

☞ **On-Chip IDE Channel0**
   ▶ Enabled   Enable onboard 1st channel IDE port. (Default value)
   ▶ Disabled   Disable onboard 1st channel IDE port.

☞ **On-Chip IDE Channel1**
   ▶ Enabled   Enable onboard 2nd channel IDE port. (Default value)
   ▶ Disabled   Disable onboard 2nd channel IDE port.

☞ **IDE Prefetch Mode**
   ▶ Enabled   Enable IDE Prefetch mode. (Default value)
   ▶ Disabled   Disable IDE Prefetch mode.

☞ **Primary Master / Slave PIO**
   ▶ Auto   Auto detect Primary Master / Slave PIO. (Default value)
   ▶ Mode 0~4   Set Primary Master / Slave PIO from mode0~mode4.

☞ **Secondary Master / Slave PIO**
   ▶ Auto   Auto detect Secondary Master / Slave PIO. (Default value)
   ▶ Mode 0~4   Set Secondary Master / Slave PIO from mode0~mode4.

☞ **Primary Master / Slave UDMA**
   ▶ Auto   Auto detect Primary Master / Slave UDMA. (Default value)
   ▶ Disabled   Disabled this function.

☞ **Secondary Master / Slave UDMA**
   ▶ Auto   Auto detect Secondary Master / Slave UDMA. (Default value)
   ▶ Disabled   Disabled this function.

☞ **IDE HDD Block Mode**
   ▶ Enabled   Enable IDE HDD Block mode. (Default value)
   ▶ Disabled   Disable IDE HDD Block mode.

☞ **Azalia HDA Controller**
   ▶ Auto   Auto detect Azalia HDA Controller. (Default value)
   ▶ Disabled   Disable this function.

☞ **Onboard LAN Device**
   ▶ Enabled   Enable Onboard H/W LAN device. (Default value)
   ▶ Disabled   Disable this function.

☞ **On-Chip LAN BOOT ROM**
   This function decide whether to invoke the boot ROM of the onboard LAN chip.
   ▶ Enabled   Enable this function.
   ▶ Disabled   Disable this function.(Default value)

☞ **Onboard Serial Port 1**
   ▶ Auto   BIOS will automatically setup the Serial port 1 address.
   ▶ 3F8/IRQ4   Enable onboard Serial port 1 and address is 3F8/IRQ4. (Default value)
   ▶ 2F8/IRQ3   Enable onboard Serial port 1 and address is 2F8/IRQ3.
   ▶ 3E8/IRQ4   Enable onboard Serial port 1 and address is 3E8/IRQ4.
   ▶ 2E8/IRQ3   Enable onboard Serial port 1 and address is 2E8/IRQ3.
   ▶ Disabled   Disable onboard Serial port 1.

☞ **Onboard Serial Port 2**
   ▶ Auto   BIOS will automatically setup the Serial port 2 address.
   ▶ 3F8/IRQ4   Enable onboard Serial port 2 and address is 3F8/IRQ4.
   ▶ 2F8/IRQ3   Enable onboard Serial port 2 and address is 2F8/IRQ3.(Default value)
   ▶ 3E8/IRQ4   Enable onboard Serial port 2 and address is 3E8/IRQ4.
   ▶ 2E8/IRQ3   Enable onboard Serial port 2 and address is 2E8/IRQ3.
   ▶ Disabled   Disable onboard Serial port 2.

☞ **UART Mode Select**
   This item allows you to determine which Infra Red(IR) function of Onboard I/O chip.
   ▶ Normal   Set onboard I/O chip UART to normal mode. (Default value)
   ▶ IrDA   Set onboard I/O chip UART to IrDA mode.
   ▶ ASKIR   Set onboard I/O chip UART to ASKIR mode.
   ▶ SCR   Set onboard I/O chip UART to SCR mode.

☞ **UR2 Duplex Mode**
   This feature allows you to seclect IR mode.
   This function will available when "UART Mode Select" doesn't set at Normal.
   ▶ Half   IR Function Duplex Half. (Default value)
   ▶ Full   IR Function Duplex Full.

☞ **Onboard Parallel Port**
   ▶ Disabled   Disable onboard LPT port.
   ▶ 378/IRQ7   Enable onboard LPT port and address is 378/IRQ7. (Default value)
   ▶ 278/IRQ5   Enable onboard LPT port and address is 278/IRQ5.
   ▶ 3BC/IRQ7   Enable onboard LPT port and address is 3BC/IRQ7.

 Parallel Port Mode
  ▶▶ SPP   Using Parallel port as Standard Parallel Port. (Default value)
  ▶▶ EPP   Using Parallel port as Enhanced Parallel Port.
  ▶▶ ECP   Using Parallel port as Extended Capabilities Port.
  ▶▶ ECP+EPP   Using Parallel port as ECP and EPP mode.

 ECP Mode Use DMA
  ▶▶ 3   Set ECP Mode Use DMA to 3. (Default value)
  ▶▶ 1   Set ECP Mode Use DMA to 1.

 USB 1.0 Controller
  ▶▶ Disabled   Disable Universal Host controller.
  ▶▶ Enabled   Enable Universal Host controller.(Default value)

 USB 2.0 Controller
  ▶▶ Disabled   Disable Enhanced Host controller.
  ▶▶ Enabled   Enable Enhanced Host controller.(Default value)

 USB Operation Mode
  Auto decide USB device operation mode.
  ▶▶ High Speed   If USB device was high speed device, then it operate on high speed mode.
                      (Default value)
  ▶▶ Full/Low Speed   If USB device was full/low speed device, then it operate on full/low speed
                      mode.

 USB Keyboard Function
  ▶▶ Disabled   Disable Legacy support of USB keyboard.
  ▶▶ Enabled   Enable Legacy support of USB keyboard.(Default value)

 USB Mouse Function
  ▶▶ Disabled   Disable Legacy support of USB mouse.
  ▶▶ Enabled   Enable Legacy support of USB mouse.(Default value)

 USB Storage Function
  ▶▶ Disabled   Disable Legacy support of USB mass storage.
  ▶▶ Enabled   Enable Legacy support of USB mass storage.(Default value)

2-5 Power Management Setup

```
                    Phoenix- AwardBIOS CMOS Setup Utility
                          Power Management Setup
┌─────────────────────────────────────────────────────────────────────────┐
│ ACPI function                      [Enabled]              Item Help        │
│ ACPI Suspend Type                  [S3(STR)]              Menu Level▶      │
│ Power Management Option            [User Define]                           │
│ HDD Power Down                     [Disabled]                              │
│ Suspend Mode                       [Disabled]                              │
│ Video Off Option                   [Suspend->Off]                          │
│ Video Off Method                   [V/H SYNC+Blank]                        │
│ Modem Use IRQ                      [3]                                     │
│ Soft-Off by Power button           [Instant-Off]                          │
│ Run VGA BIOS if S3 Resume          [Auto]                                  │
│ AC Loss Auto Restart               [Off]                                   │
│ Delay Prior to Thermal             [16Min]                                 │
│ HPET Support                       [Enabled]                              │
│ ▶ Wakeup Event Detect              [Press Enter]                           │
├─────────────────────────────────────────────────────────────────────────┤
│ ↑↓→←: Move   Enter: Select   +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help │
│      F5: Previous Values        F6: Fail-Safe Defaults        F7: Optimized Defaults     │
└─────────────────────────────────────────────────────────────────────────┘
```

☞ **Wakeup Event Detect**

```
                    Phoenix- AwardBIOS CMOS Setup Utility
                          Wakeup Event Detect
┌─────────────────────────────────────────────────────────────────────────┐
│   PS2KB Wakeup Select              [Hot Key]             Item Help         │
│   PS2KB Wakeup key select          [Any Key]            Menu Level▶        │
│   PS2MS Wakeup key select          [Left Botton]                           │
│   PS2 Keyboard PowerOn             [Disabled]                              │
│   PS2 Mouse Power On               [Disabled]                              │
│   Power On by PCI Card             [Disabled]                              │
│   Modem Ring Resume                [Disabled]                              │
│   RTC Alarm Resume                 [Disabled]                              │
│ x Date (of Month)                  0                                       │
│ x Resume Time(hh:mm:ss)            0:0:0                                    │
├─────────────────────────────────────────────────────────────────────────┤
│ ↑↓→←: Move   Enter: Select   +/-/PU/PD: Value   F10: Save   ESC: Exit   F1: General Help │
│      F5: Previous Values        F6: Fail-Safe Defaults        F7: Optimized Defaults     │
└─────────────────────────────────────────────────────────────────────────┘
```

☞ **ACPI function**
- ▶ Disabled   Disabled ACPI function.
- ▶ Enabled   Enabled ACPI function. (Default value)

☞ **ACPI Suspend Type**
- ▶ S1(POS)   Set ACPI suspend type to S1/POS(Power On Suspend).
- ▶ S3(STR)   Set ACPI suspend type to S3/STR(Suspend To RAM). (Default value)

☞ **Power Management Option**
- ▶ User Define   For configuring our own power management features. (Default value)
- ▶ Min Saving   Enabled Green function.
- ▶ Max Saving   Disabled Green function.

☞ **HDD Power Down**
- ▶ Disabled   Disabled HDD Power down function. (Default value)
- ▶ 1-15 mins   Enabled HDD Power Down mode between 1 to 15 mins.

☞ **Suspend Mode**
- ▶ Disabled   Disabled suspend mode. (Default value)
- ▶ 10 Sec -1 Hour   Setup the timer to enter Suspend Mode.

 Video Off Option
  ‣ Suspend -> Off   Set Video off option to Off. (Default value)
  ‣ Always On   Set Video off oftion to On.

 Video Off Method
  ‣ V/H SYNC+Blank   BIOS will turn off V/H-SYNC when gets into Green mode for Green monitor
                power saving. (Default value)
  ‣ Blank screen   BIOS will only black monitor when gets into Green mode.
  ‣ DPMS Support   BIOS will use DPMS Standard to control VGA card.
                (The Green type VGA card will turn of V/H-SYNC automatically.)

 Modem Use IRQ
  ‣ NA   Set Modem use IRQ to NA.
  ‣ 3   Set Modem use IRQ to 3.(Default value)
  ‣ 4   Set Modem use IRQ to 4.
  ‣ 5   Set Modem use IRQ to 5.
  ‣ 7   Set Modem use IRQ to 7.
  ‣ 9   Set Modem use IRQ to 9.
  ‣ 10   Set Modem use IRQ to 10.
  ‣ 11   Set Modem use IRQ to 11.

 Soft-Off by Power button
  ‣ Instant-off   Press power button then Power off instantly. (Default value)
  ‣ Delay 4 Sec   Press power button 4 seconds to Power off. Enter suspend if button is
                pressed less than 4 seconds.

 Run VGA BIOS if S3 Resume
  ‣ Auto   Set run VGA BIOS if S3 resume automatically. (Default value)
  ‣ Yes   Enabled run VGA BIOS if S3 resume.
  ‣ No   Disabled this function.

 AC Loss Auto Restart
  ‣ Off   Disabled this function. (Default value)
  ‣ On   Set AC Loss auto restart.
  ‣ Former-Sts   Set AC Loss to former-Sts.

 Delay Prior to Thermal
  ‣ 4 Min   Set 4 min for delay prior to thermal.
  ‣ 8 Min   Set 8 min for delay prior to thermal.
  ‣ 16 Min   Set 16 min for delay prior to thermal. (Default value)
  ‣ 32 Min   Set 32 min for delay prior to thermal.

 HPET Support (Note)
  ‣ Disabled   Disable this function.
  ‣ Enabled   Enable support for High Precision Event Timer (HPET) funtion. (Default value)

(Note)   Supported on Vista operating system only.

● **PS2KB Wakeup Select**

▶ Hot Key   Set Hot key to wakeup PS/2 Keyboard.

● **PS2KB Wakeup Key select**

When set at Password, you can set the password here.

▶ Enter   Input password (from 1 to 8 characters) and press Enter to set the Keyboard
                              Power On password.

● **PS2MS Wakeup key Select**

▶ Left Botton   Double click on PS/2 mouse left button to power on the system. (Default value)

▶ Right Botton   Double click on PS/2 mouse right button to power on the system.

● **PS2 Keyboard PowerOn**

▶ Disabled   Disable this function. (Default value)

▶ Enabled   Enable PS2 Keyboard PowerOn.

● **PS2 Mouse PowerOn**

▶ Disabled   Disable this function. (Default value)

▶ Enabled   Enable PS2 Mouse PowerOn.

● **Power On by PCI Card**

▶ Disabled   Disable this function. (Default value)

▶ Enabled   Enable power on by PCI card.

● **Modem Ring Resume**

▶ Disabled   Disable this function. (Default value)

▶ Enabled   Enable modem ring resume.

● **RTC Alarm Resume**

You can set "Resume by Alarm" item to enabled and key in Date/Time to power on system.

▶ Disabled   Disable this function. (Default value)

▶ Enabled   Enable alarm function to POWER ON system.

If Power-On by Alarm is Enabled.

▶ Day of Month Alarm :   Everyday, 1~31

▶ Time (hh: mm: ss) Alarm :   (0~23) : (0~59) : (0~59)

2-6 PC Health Status

```
                        Phoenix- AwardBIOS CMOS Setup Utility
                                 PC Health Status
    VCORE                              1.10V                    Item Help
    DDRII Voltage                      1.85V              Menu Level▶
    VCC3                               3.36V
    VCC                                5.00V
    +12V                              12.06V
    System Temperature                 34ºC
    CPU Temperature                    48ºC
    CPU FAN Speed                    3183 RPM
    SYSTEM FAN Speed                   0    RPM




    ↑↓→←: Move    Enter: Select     +/-/PU/PD: Value    F10: Save    ESC: Exit    F1: General Help
       F5: Previous Values         F6: Fail-Safe Defaults           F7: Optimized Defaults
```

  ✆ **Current DDRII Voltage(V) / Vcore / VCC3 / +12V**
      ▸▸ Detect system's voltage status automatically.

  ✆ **Current System / CPU Temperature**
      ▸▸ Detect System / CPU temperature automatically.

  ✆ **Current CPU / SYSTEM FAN Speed (RPM)**
      ▸▸ Detect CPU / System fan speed status automatically.

2-7 Frequency / Voltage Control

```
                        Phoenix- AwardBIOS CMOS Setup Utility
                             Frequency / Voltage Control
 Auto Detect PCI Clk                   [Enabled]                  Item Help
 Spread Spectrum                       [+-0.20%]               Menu Level▶
 CPU / PCIEX / AGP / PCI               [Default]













 ↑↓→←: Move    Enter: Select    +/-/PU/PD: Value    F10: Save    ESC: Exit    F1: General Help
    F5: Previous Values         F6: Fail-Safe Defaults          F7: Optimized Defaults
```

⚠ CAUTION Incorrect using these features may cause your system broken. For power end-user use only.

☞ **Auto Detect PCI Clk**
- ▶ Disabled   Disabled auto detect PCI clock.
- ▶ Enabled   Enabled atuo detect PCI clock.(Default value)

☞ **Spread Spectrum**
- ▶ Disabled   Disable CPU Spread Spectrum.
- ▶ +/-0.20%   Set Spread Spectrum to +/-0.20%.(Default value)
- ▶ +/-0.25%   Set Spread Spectrum to 0.25%.
- ▶ +/-0.375%   Set Spread Spectrum to 0.375%.
- ▶ +/-0.5%   Set Spread Spectrum to 0.5%.
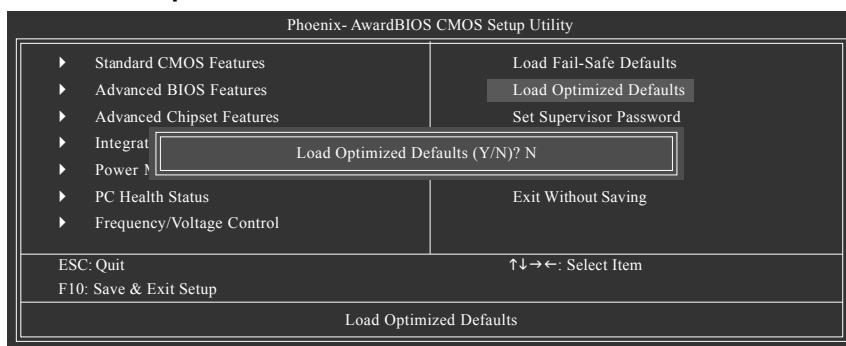
☞ **CPU / PCIEX / AGP / PCI**
- ▶ Default   Auto detect CPU / PCIEX / AGP / PCI .(Default value)
- ▶ 100/100/66/33 MHz   CPU 100MHz / PCIEX 100MHz / AGP 66MHz / PCI 33MHz

2-8 Load Fail-Safe Defaults

CMOS Setup Utility-Copyright (C) 1984-2006 Award Software	
▶ Standard CMOS Features	Load Fail-Safe Defaults
▶ Advanced BIOS Features	Load Optimized Defaults
▶ Advanced Chipset Features	Set Supervisor Password
▶ Integrated	
▶ Power Ma	Load Fail-Safe Defaults (Y/N)? N
▶ PC Health Status	Exit Without Saving
▶ Frequency/Voltage Control	
ESC: Quit	↑↓→←: Select Item
F10: Save & Exit Setup	
Load Fail-Safe Defaults	

Fail-Safe defaults contain the most appropriate values of the system parameters that allow minimum system performance.

2-9 Load Optimized Defaults

Phoenix- AwardBIOS CMOS Setup Utility	
▶ Standard CMOS Features	Load Fail-Safe Defaults
▶ Advanced BIOS Features	Load Optimized Defaults
▶ Advanced Chipset Features	Set Supervisor Password
▶ Integrat	Load Optimized Defaults (Y/N)? N
▶ Power N	
▶ PC Health Status	Exit Without Saving
▶ Frequency/Voltage Control	
ESC: Quit	↑↓→←: Select Item
F10: Save & Exit Setup	
Load Optimized Defaults	

Selecting this field loads the factory defaults for BIOS and Chipset Features which the system automatically detects.

2-10   Set Supervisor/User Password

Phoenix- AwardBIOS CMOS Setup Utility	
▶ Standard CMOS Features	Load Fail-Safe Defaults
▶ Advanced BIOS Features	Load Optimized Defaults
▶ Advanced Chipset Features	Set Supervisor Password
▶ Integrat Enter Password:	
▶ Power M	
▶ PC Health Status	Exit Without Saving
▶ Frequency/Voltage Control	
ESC: Quit	↑↓→←: Select Item
F10: Save & Exit Setup	
Change/Set/Disable Password	
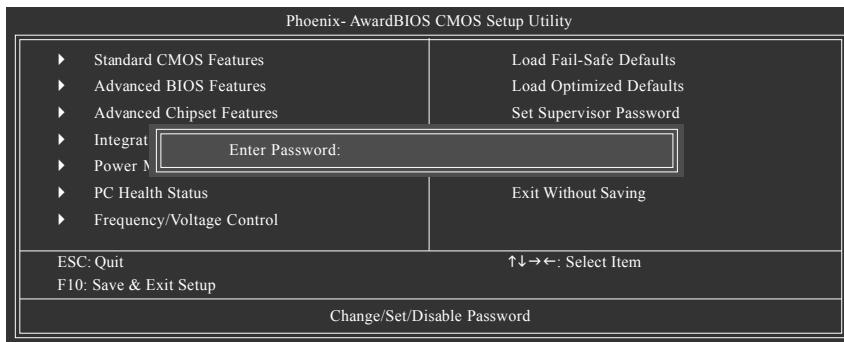
When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

Type the password, up to eight characters, and press <Enter>. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

To disable password, just press <Enter> when you are prompted to enter password. A message "PASSWORD DISABLED" will appear to confirm the password being disabled. Once the password is disabled, the system will boot and you can enter Setup freely.
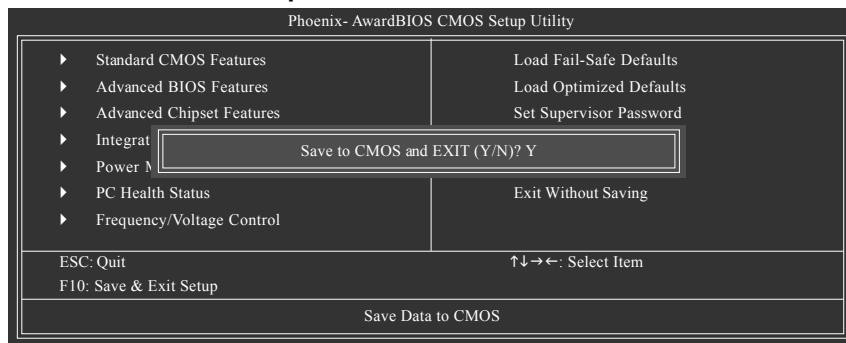
The BIOS Setup program allows you to specify two separate passwords:

SUPERVISOR PASSWORD and a USER PASSWORD. When disabled, anyone may access all BIOS Setup program function. When enabled, the Supervisor password is required for entering the BIOS Setup program and having full configuration fields, the User password is required to access only basic items.

If you select "System" at "Password Check" in Advance BIOS Features Menu, you will be prompted for the password every time the system is rebooted or any time you try to enter Setup Menu.

If you select "Setup" at "Password Check" in Advance BIOS Features Menu, you will be prompted only when you try to enter Setup.
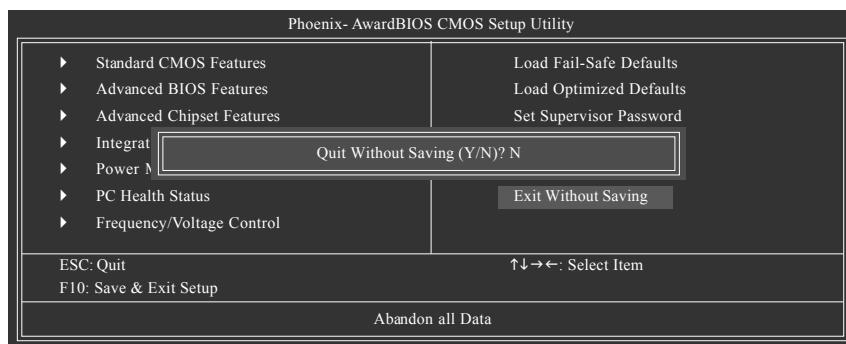
2-11 Save & Exit Setup

Phoenix- AwardBIOS CMOS Setup Utility	
▶ Standard CMOS Features	Load Fail-Safe Defaults
▶ Advanced BIOS Features	Load Optimized Defaults
▶ Advanced Chipset Features	Set Supervisor Password
▶ Integrat	Save to CMOS and EXIT (Y/N)? Y
▶ Power M	
▶ PC Health Status	Exit Without Saving
▶ Frequency/Voltage Control	
ESC: Quit	↑↓→←: Select Item
F10: Save & Exit Setup	
Save Data to CMOS	

Type "Y" will quit the Setup Utility and save the user setup value to RTC CMOS.
Type "N" will return to Setup Utility.

2-12 Exit Without Saving

Phoenix- AwardBIOS CMOS Setup Utility	
▶ Standard CMOS Features	Load Fail-Safe Defaults
▶ Advanced BIOS Features	Load Optimized Defaults
▶ Advanced Chipset Features	Set Supervisor Password
▶ Integrat	Quit Without Saving (Y/N)? N
▶ Power M	
▶ PC Health Status	Exit Without Saving
▶ Frequency/Voltage Control	
ESC: Quit	↑↓→←: Select Item
F10: Save & Exit Setup	
Abandon all Data	

Type "Y" will quit the Setup Utility without saving to RTC CMOS.
Type "N" will return to Setup Utility.

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